

U.S. Patent Application Serial No. 10/520,282
Amendment filed October 16, 2008
Reply to OA dated May 28, 2008

REMARKS

Claims 2-14 are pending in this application. Claim 4 is canceled without prejudice or disclaimer, and claims 2, 3 and 7-9 are amended herein. Upon entry of this amendment, claims 2, 3 and 5-14 will be pending. Entry of this amendment and reconsideration of the rejections are respectfully requested.

No new matter has been introduced by this Amendment. Support for the amendments to the claims is discussed below.

Claims 2-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. (Office action p. 2)

The rejection of claims 2, 3 and 5-14 is respectfully traversed. The specific rejection of claim 4 is moot in view of the cancellation of claim 4 without prejudice or disclaimer.

In the previous Office action, this rejection was applied to claims 1-14, and Applicant traversed the rejection for claims 2-14 in the last Amendment, arguing in particular that the terms “hydrocarbon group,” “chiral group,” etc., are well defined in the art and are not being “defined by examples” in the specification as contended by the Examiner.

In traversing the rejection, Applicant maintains the previous argument. In the Response to Arguments on page 7 of the Office action, the Examiner states that Applicant's argument that these terms are well defined in the art is “not persuasive because the requirement of 35 U.S.C. 112 is not what is known or obvious to one of ordinary skill in the art but a “full, clear, concise and exact

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terms as to enable any person skilled in the art ... to make and use the same.”” (emphasis added).

(It is not clear if the Examiner made this argument in regard to the rejection under 35 U.S.C. 112, first paragraph, or 35 U.S.C. 112, second paragraph).

Applicant respectfully submits that the Examiner's argument is self-contradictory. The phrase “clear, concise and exact terms” refers to terms that are well defined in the art. If the terms are not in some way known or understood by one of skill in the art, they cannot possibly be clear. Applicant again submits that the chemical terms “hydrocarbon group,” “chiral group,” etc., referred to by the Examiner in the rejection, are standard, well known terms, and are “concise” and sufficiently defined so as to be considered “clear” and “exact.” The Examiner has not provided any evidence that these standard terms do not meet the criteria for written description under 35 U.S.C. 112, first paragraph.

Withdrawal of the rejection is respectfully requested.

Claims 2-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

(Office action p. 3)

The rejection of claims 2-14 is respectfully traversed, although claims 2 and 3 have been amended to remove a redundancy in their recitation.

The Examiner states that “a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claims) is considered indefinite See MPEP 2173.05(c).” The Examiner also refers to *Ex parte Wu*.

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Applicant notes that MPEP 2173.05(c) refers to use of broad and narrow numerical ranges in the same claim. The Examiner is apparently referring to the limitation of “1-20 carbon atoms” in the definition of groups R¹-R¹⁰. However, in claim 2, for example, the only definition of groups R¹-R¹⁰ is that they “individually represent a hydrogen atom or a substituted or unsubstituted alkyl group having 1-20 carbon atoms.” There is no other numerical range given for groups R¹-R¹⁰. This appears to be the case for all of the claims. MPEP 2173.05(c) is therefore **irrelevant** to the present claims.

The Examiner also refers to *Ex parte Wu* as dealing with the issue of the term “such as” in a claim. However, the present claims **do not recite “such as” or any similar phrase.**

The Examiner then states that claims 2-3 recite that R¹² is a hydrocarbon group, and then further recite that R¹² is a chiral secondary hydrocarbon group. Although this present recitation is not indefinite, the Examiner is correct that the recitation is redundant. Claims 2 and 3 have been amended to remove this redundancy by deleting the broader portion of the definition of group R¹².

Applicant respectfully maintains the traversal of the portion of the rejection regarding definition of “hydrocarbon group,” etc., in the claims. Note that the Examiner states that: “hydrocarbon group in of itself embraces the entire textbook of organic chemistry.” This is, of course, incorrect, as hydrocarbons are only a small subset of organic compounds. However, the key issue here is whether the term “hydrocarbon group” is **definite, i.e., defined**. Applicant again submits that this term is defined, and that the Examiner has provided no evidence to the contrary.

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The Examiner repeats the statement that claims 6, 9 and 12-14 "define R12-15 as hydrocarbon group while substituting one for the other. In other words, the starting reagents and the products are the same. Therefore they are omnibus claims."

Applicant notes, first of all, that "omnibus claims" are claims which are defined in the claim only by general reference to the drawings or specification (see MPEP 2173.05(r)). This is not the case with the present claims, and an "omnibus claim" rejection is inappropriate here.

Applicant conjectures that what the Examiner is stating is that, in the reactions that occur in the claimed processes, a substitution occurs. For example, claim 6 recites a process "comprising reacting a ... compound of formula (3) ... with an alcohol of formula $R^{12}OH$... in the presence of an acid catalyst." The reaction scheme is shown in the specification at page 23, line 13. However, The Examiner is **incorrect** in stating that the starting reagents and the products are the same. The claim only explicitly recites the starting reagents (formula (3) and $R^{12}OH$), and does **not** even specifically recite the product. Even if R^{12} and R^{13} were selected to be the same, such that the reactant and product were the same, the recited process would still be proper.

Withdrawal of the rejection is respectfully requested.

**Claims 2-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Nemeto et al.
WO 02/072505. (Office action page 5)**

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The rejection of pending claims 2, 3 and 5-14 is overcome by the perfection of the claim for foreign priority.

Nemeto WO '505 was published on September 19, 2002. The present application is a 371 National Stage application of PCT/JP03/10643, the PCT application being filed on August 22, 2003, which is the effective US filing date. WO '505 is therefore prior art only under 35 U.S.C. 102(a).

Applicant notes that corresponding U.S. Patent Publ. 2007/077098A1 to Nemeto is not prior art for the present application. Nemeto '098A1 could be prior art only as of its actual US filing date, which is August 26, 2003, and not as of its international filing date of February 25, 2002, because the international application publication (i.e., WO '505) was not in English. The August 26, 2003, date of Nemeto '098A1 is after the August 22, 2003, effective filing date of the present application.

The present application claims foreign priority of two Japanese applications (JP 2002-244371 and JP2002-244374) filed on August 23, 2002, this date predating the publication date of WO '505. Applicant here perfects the claim for foreign priority by providing the attached verified English translation of the priority documents.

Applicant submits that the Japanese priority applications fully support the present claims. Specifically, claims 1, 2, 3, 5, 6, 7, 8, 9, 10, 11 and 12 are supported by the disclosure in JP 2002-244371, and claims 1, 4 and 5 are supported by the disclosure in JP 2002-244374.

Nemeto WO'505 is therefore not prior art against the present claims, and the rejection is overcome.

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Claims 2-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Feldman et al.

Tetrahedr. Lettrs. (1998), vol. 39(19), pp. 2911-2914. (Office action page 5)

The rejection of claims 2-3 is respectfully traversed, and reconsideration is requested.

In the last Amendment, Applicant traversed the rejection of claims 2-6, arguing that compound 4 of Feldman is similar to formula (1) in claim 1, but would require R⁴ (or R³) to be phenyl, R¹² to be Bn (n-butyl), and the rest of the substituents R¹-R³ and R¹¹ in formula (1) to be H. In the present claims, R³ and R⁴ must be hydrogen or unsubstituted alkyl group, and cannot be phenyl. Applicant therefore argued that Feldman's compound 4 is inconsistent with the structure in claims 2-6. Applicant also argued that position R¹² in Feldman is occupied by the Bn (n-butyl) group, which is not chiral, and that this is also inconsistent with the claims.

The Examiner repeats the rejection, and on page 6 states that Bn in Feldman is not n-butyl, but rather is benzyl. The Examiner also states that R¹² is a chiral compound in the present claims only when R¹¹ is alkenyl.

Upon review of Feldman, Applicant concurs that Bn is probably benzyl (the abbreviation is never explicitly defined). However, this is irrelevant to Applicant's previous argument, which was based on the fact that in Feldman's compound 4, the analogue of R⁴ or R³ is phenyl, and this is inconsistent with the claims.

In addition, Applicant respectfully submits that the Examiner was incorrect in stating that R¹² is a chiral compound in the claims only when R¹¹ is alkenyl. Claims 2 and 3 recited in the last

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lines that R¹² is a chiralic secondary hydrocarbon group. The recitations of claims 2 and 3 have been clarified by deleting the broader clause preceding the last lines in the claims, as discussed above.

Claims 2-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Leitich et al., Eur. J. Org. Chem. (2001), Vol. 14, pp. 2707-2914. (Office action page 5)

The rejection of claims 2-3 is respectfully traversed, and reconsideration is requested.

The Examiner again cites Leitich's compounds 5a-i. Applicant maintains the argument from the last Amendment that the analogue of group R¹² in Leitich was TFE, which does not meet the requirement of the claims of a chiralic group. As in the previous rejection, Applicant respectfully submits that the Examiner has ignored the limitation in the last lines of claims 2 and 3 requiring a chiralic group R¹². As discussed above, claims 2 and 3 have been clarified by deleting the redundant broader recitation preceding the limitation in the last lines of the claims.

Claims 2-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Morton et al., J. Am. Chem. Soc. (1970), Vol. 92(14), pp. 4349-[4357]. (Office action page 5)

The rejection of claims 2-3 is respectfully traversed, and reconsideration is requested.

In traversing the rejection, Applicant maintains the previous argument that the analogue to group R¹² in Morton is a methyl group, which is not chiralic. As discussed above, claims 2 and 3 require a chiralic group R¹².

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Claims 2-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Daniewski et al.

Bull. Polish Acad. Sci.: Chem, (1989), Vol. 37(7-8), pp. 277-281. (Office action page 5)

The rejection of claims 2-3 is respectfully traversed, and reconsideration is requested.

In traversing the rejection, Applicant maintains the previous argument that the group in the reference corresponding to R¹² is a methyl group, which does not meet the limitations of claim 2 or claim 3.

Claims 1-4 [sic] are rejected under 35 U.S.C. 102(b) as being anticipated by Daniewski et al. Synthesis (1987), vol. 8, pp. 705-708. (Office action page 6)

The rejection of pending claims 2 and 3 is respectfully traversed, and reconsideration is requested. The rejection is moot for claim 4, which is canceled without prejudice or disclaimer.

In traversing the rejection, Applicant maintains the previous argument that the group in the reference corresponding to R¹² is a methyl group, which does not meet the limitations of claim 2 or 3.

Claims 4, 7, 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nemeto, Tetrahed. Lettrs. (1994), vol. 35(42), pp. 7785-7789. (Office action page 6)

The rejection of claims 7 and 9-14 is overcome by the amendments to claims 7-9. The rejection is moot for claim 4, which is canceled without prejudice or disclaimer.

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Claims 7-9 have been amended to require that group R¹² be a chiralic secondary hydrocarbon group. Nemeto (1994) does not disclose a chiralic group at this position.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants' undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosures: Petition for Extension of Time

Verified English translation of JP 2002-244371

Verified English translation of JP 2002-244374